

AMENDMENTS TO THE CLAIMS

1. (currently amended): Hydrogel composition comprised of a mixture of

(A) a water soluble or water dispersible hydrophilic polymer ~~in an aqueous system~~ substituted-grafted with oligomers or co-oligomers, wherein the oligomers or co-oligomers comprise a first chiral region, said first chiral region being mainly composed of first are at least partly formed from chiral monomers having identical chirality, and

(B) a water soluble or water dispersible hydrophilic polymer ~~in an aqueous system~~ substituted-grafted with oligomers or co-oligomers, wherein the oligomers or co-oligomers comprise a second chiral region with a chirality that is opposite to the chirality of the first chiral region, said second chiral region being mainly composed of second are at least partly formed from chiral monomers having identical chirality to one another, said second chiral monomers having with a-chirality that is opposite to that the chirality of said first chiral monomers in mixture (A), in an aqueous system,

such that the chiral part-region of the oligomers or co-oligomers in ~~mixture~~ (B) are in essence complementary to ~~that of said groups of mixture~~ the chiral region in (A), where the groups on the polymers from mixture (A) wherein the first chiral region and the second chiral region interact noncovalently ~~with the groups from mixture (B).~~

2. (currently amended): Hydrogel composition according to claim 1, ~~wherein in which~~ the said oligomers or co-oligomers of mixtures one of (A) or (B) are chosen from the group comprising-consisting of homo-oligomers of D-lactic acid, random co-oligomers of D-lactide/ ϵ -caprolactone, di- and triblock blends of D-rich poly (lactic acid), poly (D-lactide-co-glycolide), di- and triblock co-oligomers of poly (ethylene glycol)/poly (D-lactic acid), poly (methyl methacrylate), poly (α -methyl- α -ethyl- β -propiolactone), poly (tert-butylethylene oxide), poly (tert-butylethylene sulfide), poly [β ,-(1,1-dichloropropyl)- β -propiolactone], poly(α -benzyl glutamate), poly(methylbenzyl methacrylate), poly(vinyl-N-butylpyridinium bromide), poly (sodium styrenesulfonate), poly (tert-butylthiirane), poly (α -methylbenzyl methacrylate), poly [β -(1,1-dichloroethyl)- β -propiolactone], and mixtures thereof; and said

~~monomers of the other mixture~~ oligomers or co-oligomers of the other of (A) or (B) are formed by the enantiomers ~~thereof of said monomers of the first mixture.~~

3-5. (canceled)

6. (currently amended): Hydrogel composition according to claim 1, ~~in which~~ wherein the water soluble or water dispersible hydrophilic polymer is ~~chosen~~ selected from the group consisting of dextran, starch, cellulose ~~derivates~~ derivatives, albumin, lysozyme, poly(aminoacids), poly(lysine) and related copolymers, poly(glutamic acid) and related copolymers, poly(meth)acrylates/~~(meth)acrylamides~~, poly(meth)acrylamides, poly(vinylalcohol), poly(ethylene glycol), water soluble polyphosphazenes, ~~or and~~ and mixtures thereof.

7. (currently amended): Hydrogel composition according to claim 6[[1]], ~~in which~~ there is a linking group between the water soluble or water dispersible polymer and the oligomeric or co-oligomeric group, which linking group comprises a hydrolysable group wherein the water soluble or water dispersible hydrophilic polymer is dextran.

8-11. (canceled)

12. (currently amended): Hydrogel composition according to claim 1, ~~in which the oligomeric or co-oligomeric groups of one mixture comprise~~ wherein the first chiral region comprises poly(D-lactic acid) and the oligomeric or co-oligomeric groups of the other mixture second chiral region comprises poly(L-lactic acid) both with an average chain length of 7-15 monomers.

13. (currently amended): Hydrogel composition according to claim 1, ~~in which all oligomeric or co-oligomeric groups have equal length~~ wherein the first chiral region and the second chiral region are comprised of 7-25 chiral monomers on average.

14. (canceled)

15. (currently amended): Process for the preparation of a hydrogel comprising:

a) ~~polymerization~~ polymerizing a first chiral monomer, optionally in the presence of a suitable initiator, ~~of a monomer, where the monomer of one mixture is the enantiomer of the monomer of the other mixture;~~

b) polymerizing a second chiral monomer, said second chiral monomer having opposite chirality to said first chiral monomer, optionally in the presence of a suitable initiator;

~~b)c)~~ reacting each the product of step a) with a suitable coupling compound and a water soluble or water dispersible hydrophilic polymer to form two mixtures of a water soluble or water dispersible hydrophilic polymer substituted-grafted with oligomers or co-oligomers, at least partly formed from chiral monomers of opposite chirality, and wherein the oligomers or co-oligomers comprise a first chiral region, said first chiral region being mainly composed of first chiral monomers having identical chirality;

d) reacting the product of step b) with a suitable coupling compound and a water soluble or water dispersible hydrophilic polymer to form a water soluble or water dispersible hydrophilic polymer grafted with oligomers or co-oligomers, wherein the oligomers or co-oligomers comprise a second chiral region with a chirality that is opposite to the chirality of the first chiral regions, said second chiral regions being mainly composed of second chiral monomers having identical chirality to one another, said second chiral monomer having chirality that is opposite to the chirality of said first chiral monomers; and

~~e)e)~~ mixing said two mixtures the product of step c) and the product of step d) in an aqueous system such that the groups on the polymers oligomers or co-oligomers interact noncovalently.

16. (currently amended): Process according to claim 15, ~~in which the said~~ suitable initiator ~~contains~~ comprising a primary or secondary hydroxyl group.

17. (currently amended): Process according to claim 15[[16]], ~~in which~~ wherein an active ingredient is added ~~before or in step e)~~ prior to or during step e).

18-23. (canceled)

24. (currently amended): A method for drug delivery comprising administering the hydrogel composition of claim 31[[1]].

25-26. (canceled)

27. (new): Process according to claim 17, wherein the active ingredient is a drug to be released.

28. (new): Process according to claim 27, wherein the drug to be released is selected from proteins and proteinaceous products.

29. (new): Hydrogel composition according to claim 1, wherein the hydrogel is formed in microspheres.

30. (new): Hydrogel composition according to claim 1, further comprising an active ingredient.

31. (new): Hydrogel composition according to claim 30, wherein the active ingredient is a drug to be released.